

Application No. 09/932,050  
Amendment and Response dated February 17, 2006  
Reply to Office Action of October 17, 2005

### REMARKS

Upon entry of this amendment, claims 1, 4, 14-19, and 22-26 are pending. Claims 1, 4 and 22 have been amended.

#### **Rejection under 35 U.S.C. § 132**

The inclusion of the term "Ni<sub>2</sub>Si" was rejected under 35 U.S.C. § 132. The amendment to the specification above is supported by ¶24 of the priority document (ll. 4-5 of the following original priority document which appears in its original form below):

特 2 0 0 1 - 2 2 8 2 3 9

いは半導体元素としては、4 B 展の金属元素あるいは半導体元素が好ましく、特に好ましくはケイ素あるいはスズであり、最も好ましくはケイ素である。これらの合金あるいは化合物も好ましく、具体的には、SiB<sub>4</sub>、SiB<sub>6</sub>、Mg<sub>2</sub>Si、Mg<sub>2</sub>SaANi<sub>2</sub>Si、TiSi<sub>2</sub>、MoSi<sub>2</sub>、CoSi<sub>2</sub>、NiSi<sub>2</sub>、CaSi<sub>2</sub>、CrSi<sub>2</sub>、Cu<sub>5</sub>Si、FeSi<sub>2</sub>、MnSi<sub>2</sub>、NbSi<sub>2</sub>、TaSi<sub>2</sub>、VSi<sub>2</sub>、WSi<sub>2</sub>あるいはZnSi<sub>2</sub>などが挙げられ、これらを成型した電極体を用いることができる。

Applicant therefore requests reconsideration and withdrawal of this rejection.

#### **Rejections under 35 U.S.C. § 112, ¶1**

Claims 22 is rejected under 35 U.S.C. § 112, ¶1 as being failing to satisfy the written description requirement. Applicant respectfully submits that the amendment to claim 22 overcomes this rejection and requests reconsideration and withdrawal of this rejection on this basis.

Claims 1, 4, 14-19, and 22-26 are rejected under 35 U.S.C. § 112, ¶1 as being failing to satisfy the written description requirement. Applicant respectfully submits that the amendment to claims 1 and 4 overcome this rejection and requests reconsideration and withdrawal of this rejection on this basis.

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### Rejections under 35 U.S.C. § 102(b)

A. Claims 1, 4, 14-19, and 22-26 are rejected under 35 U.S.C. § 102(b) as being anticipated by JP 10-312789 to Inamasu. Applicant respectfully traverses and, for the following reasons, requests reconsideration and withdrawal of this rejection.

Claims 1, 4, 14-19, and 22-26 are not anticipated by the cited reference because Inamasu fails to teach each and every limitation of these claims. Specifically, Inamasu fails to teach a secondary cell having a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer and wherein  $0 < x \leq 2$  and  $1 \leq y \leq 2$ , and an anode wherein said anode comprises sintered carbon material. Although the Examiner suggests that paragraph 20 provides a " $\text{Li}_x\text{FePO}_4$  active material having an average grain size (particle diameter) of 0.1 to 100  $\mu\text{m}$ ," Applicant respectfully suggests that Inamasu specifically refers to "the forward negative-electrode active material having an average grain size (particle diameter) of 0.1 to 100  $\mu\text{m}$ " and does not refer to  $\text{Li}_x\text{FePO}_4$ , a positive electrode active material, e.g., the cathode of claims 1 and 4. In fact, Inamasu does not appear to mention a grain size of any particle on the cathode. Additionally, although the Examiner suggests that paragraph 23 of Inamasu teaches such a sintered anode, Applicant respectfully suggests that the sintering discussed in paragraph 23 of Inamasu refers to a "covalent crystal," but it is not clear whether it refers to a carbon material.

Thus, because Inamasu fails to disclose every limitation of independent Claims 1 and 4, it does not anticipate these claims and the claims depending therefrom and cannot therefore be used to support a rejection under § 102(b). Applicant therefore respectfully requests that this rejection be withdrawn.

B. Claims 4, 19, and 22-26 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,705,296 to Kamauchi. Applicant respectfully traverses and, for the following reasons, requests reconsideration and withdrawal of this rejection. Claims 4, 19, and 22-26 are not anticipated by the cited reference because Kamauchi fails to teach each and every limitation of these claims. Specifically, Kamauchi fails to teach a secondary cell having a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer and wherein  $0 < x \leq 2$  and  $1 \leq y \leq 2$ , and an anode wherein said anode comprises sintered carbon material. Although the Examiner suggests that Kamauchi teaches a "positive active material [having] an average size of 0.01 through 20  $\mu\text{m}$ ," Applicant respectfully suggests that Kamauchi specifically refers only to "[t]he oxide mentioned above is pulverized to

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particles having an average size of 0.01 through 20  $\mu\text{m}$ ." The oxide referred to is one of cobalt oxide or lithium-cobalt oxide, but does not include the lithium-iron phosphate of the present invention. Hence, Kamauchi does not teach "a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer."

Because Kamauchi fails to disclose every limitation of independent Claims 4, it does not anticipate these claims and the claims depending therefrom and cannot therefore be used to support a rejection under  $\S$  102(b). Applicant therefore respectfully requests that this rejection be withdrawn.

#### Rejection under 35 U.S.C. $\S$ 103(a)

Claims 1 and 14-18 are rejected under 35 U.S.C.  $\S$  103(a) as being unpatentable over Kamauchi in view of U.S. Patent No. 6,576,369 to Moriguchi. Applicant respectfully traverses and, for the following reasons, requests reconsideration and withdrawal of this rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. MPEP  $\S$  2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As stated above, Kamauchi does not teach "a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer." Further, the Examiner points out that Kamauchi "does not explicitly teach [an anode comprising a] sintered carbon material." Therefore, Kamauchi individually does not teach or suggest the claimed invention. In addition, Kamauchi does not provide any suggestion or motivation to use an anode comprising a sintered carbon material or combine its teachings with Moriguchi. The Examiner provides no evidence to the contrary. Moreover, Moriguchi fails to teach a secondary cell having a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer and wherein  $0 < x \leq 2$  and  $1 \leq y \leq 2$ . Moriguchi does not provide any suggestion or motivation to use a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer and wherein  $0 < x \leq 2$  and  $1 \leq y \leq 2$ . The Examiner provides no evidence to the contrary.

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Therefore, the combination of Kamauchi and Moriguchi does not teach or suggest a secondary cell having a cathode comprising  $\text{Li}_x\text{Fe}_y\text{PO}_4$  having a particle diameter not greater than 1 micrometer and wherein  $0 < x \leq 2$  and  $1 \leq y \leq 2$ , and an anode wherein said anode comprises sintered carbon material as recited in Applicant's amended independent claim 1. Because there is no teaching or suggestion in Kamauchi in view of Moriguchi of *all* of the limitations of Applicant's claims, the present invention is not obvious under § 103(a).

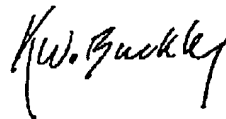
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CONCLUSION

Applicant respectfully requests withdrawal of the rejections and believes that the claims as presented represent allowable subject matter. If the Examiner desires, Applicant welcomes a telephone interview to expedite prosecution and is available at the telephone number below. Applicant believes there is a fee of \$120 for a one (1) month extension of time to respond to the Office Action due at this time. However, the Commissioner is hereby authorized to deduct any deficiency or credit any overpayment to Deposit Account No. 19-3140.

Respectfully submitted,

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